The UCLA Comprehensive Stroke Center and Neurovascular Program present the

21st ANNUAL

UCLA BRAIN ATTACK! ‘16
Symposium on State-of-the-Art Stroke Management

SATURDAY • MAY 7, 2016
UCLA Carnesale Commons | 251 Charles E. Young Drive, West • Los Angeles, California 90095

UCLA COURSE DIRECTOR:
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Director, Stroke Neurology, Department of Neurology

Paul Vespa, MD
Director, Neurocritical Care, Departments of Neurosurgery and Neurology

Sponsored by:

In association with:
Saturday, May 7, 2016

7:30AM  Registration and Continental Breakfast

8:00   Welcome - Kelsey C. Martin, MD, PhD

8:10   Stroke Prevention in Atrial Fibrillation: Warfarin, Novel Anticoagulants, and Cardio-embolic Prevention Devices
       Noel G. Boyle, MD, PhD

8:40   Bringing the Doctor and the Hospital to the Patient: Telestroke and Mobile Stroke Units
       Latisha K. Sharma, MD

9:10   Update on Acute Ischemic Stroke Intervention
       Reza Jahan, MD

9:40   IV TPA in the Era of Intra-Arterial Therapy for Acute Ischemic Stroke
       Neal M. Rao, MD and Bryan Y. Yoo, MD

10:10  Break

10:30  Collateral Blood Flow in Stroke: From Trials to Practice
       David S. Liebeskind, MD

11:00  Controversies in Critical Care of Intracerebral Hemorrhage
       Manuel M. Buitrago Blanco, MD, PhD and Paul Vespa, MD

11:30  Seizures and Stroke: Diagnosis and Management Issues
       John Stern, MD and Sidney Starkman, MD

12:00PM  Lunch

1:00   Management of Medical Complications of Stroke
       Lucas Restrepo, MD, PhD

1:30   Unruptured Intracranial Aneurysms: To Treat or Not to Treat and How
       Neil Martin, MD

2:00   Advances in Interventional Management of Unruptured Aneurysms
       Satoshi Tateshima, MD, PhD

2:30   Endovascular Treatment of Cerebral Venous Pathology
       Viktor Szeder, MD, PhD, MSc

3:00   Break

3:20   Posterior Circulation Stroke is Different from Anterior Circulation Stroke: How and Why
       James I. Ausman, MD, PhD

       David Alexander, MD

4:20   The Revolution Will Be Regionalized: Stroke Systems in the Age of Thrombectomy
       Jeffrey Saver, MD

4:50   Closing Remarks

5:00   Adjourn
COURSE OBJECTIVES

At the conclusion of this program participants should be able to:

- Describe and employ available and emerging treatment options for ischemic and hemorrhagic stroke
- Identify and manage medical complications of stroke, including seizures and epilepsy
- Describe and utilize recent developments in management of unruptured intracranial aneurysms and cerebrovenous disease
- Summarize recent developments in endovascular treatment of acute ischemic stroke and recognize their impact on Primary and Comprehensive Stroke Center designation

TARGET AUDIENCE

Neurologists, Neurosurgeons, Interventional Neuroradiologists, Emergency Physicians, Family Practice Physicians, Internists, and other health care professionals who want to enhance their knowledge of the management of patients with cerebrovascular diseases.

FACULTY

David Alexander, MD  
Clinical Professor of Neurology*  
Medical Director, California Rehabilitation Institute

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Clinical Professor of Neurosurgery*  
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Director, UCLA Stroke Network

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Director, Epilepsy Clinical Program  
Director, Epilepsy Residency Training Program  
Co-Director, Seizure Disorder Center

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Director, Neurocritical Care

Bryan Y. Yoo, MD  
Assistant Clinical Professor of Radiology*  
Division of Neuroradiology

* David Geffen School of Medicine at UCLA
Acute Treatment: For patients with new onset stroke symptoms, a “Brain Attack” rapid care program provides:
- immediate evaluation by emergency physicians and neurologists
- CT / MRI scan within minutes of emergency department arrival
- prompt neurovascular intensive/intermediate level care
- trials of novel therapies for ischemic and hemorrhagic stroke, and acute interventional and surgical therapies.

Stroke in Children and Young Adults: Experts in pediatric neurology, neurosurgery, interventional and diagnostic neuroradiology, and stroke neurology work together at the UCLA Comprehensive Stroke Center to provide comprehensive evaluation and treatment for pediatric and young adult patients with cerebrovascular disorders including moyamoya syndrome, sickle cell anemia, hyper-coagulable states, cardioembolic stroke, arteriovenous malformations, and aneurysms.

Rehabilitation: The newly opened California Rehabilitation Institute is a 138 bed free-standing acute rehabilitation hospital in Century City that is a joint venture with UCLA and Cedars-Sinai, and provides state-of-the-art care to maximize recovery for patients with stroke.

Carotid Endarterectomy: Microneurosurgical endarterectomy, with intraoperative brain monitoring, is available for asymptomatic and symptomatic carotid artery stenosis.

Reperfusion: For patients eligible to receive intravenous tPA, thrombolysis is rapidly administered. In addition, interventional neuroradiologic teams are available around the clock to deliver, for selected patients, endovascular or intra-arterial pharmacologic and mechanical thrombolysis.

Cerebral and Carotid Angioplasty and Stenting: UCLA provides angioplasty and stenting for selected patients with intracranial and extracranial carotid or verteobasilar stenoses.

NIH Studies: The UCLA Comprehensive Stroke Center is a co-lead center for the NIH Los Angeles-Southern California StrokeNET, one of twenty-five regional networks in the country for performing studies of stroke prevention, acute treatment, and recovery. In addition, UCLA is the coordinating center for the Los Angeles Neurological Emergency Treatment Trials (LA-NETT), which is a network conducting a number of clinical trials in emergency neurology, including acute stroke and status epilepticus.

Prevention: The Stroke Clinic provides comprehensive evaluation and treatment recommendations for individuals at increased risk for ischemic and hemorrhagic stroke, including those with atrial fibrillation, carotid artery stenosis, transient ischemic attacks, and newly diagnosed unruptured aneurysms or vascular malformations.
Atherosclerosis, Aneurysms, and Cerebrovascular Malformations

Tremendous strides have been made in the management of complex vascular lesions of the brain and spinal cord. This symposium will provide a review of the basic principles of clinical and radiologic management of carotid and intracranial stenoses, subarachnoid hemorrhage and aneurysms, and vascular malformations. Developments in microsurgical and endovascular techniques as well as critical care neurology will be discussed.

The UCLA Neurovascular Program

The UCLA Neurovascular Program has developed management protocols for the diagnosis and treatment of cerebrovascular disorders which incorporate recent developments in stroke neurology, microneurosurgery, diagnostic and interventional neuroradiology, stereotactic radiosurgery, neuroanesthesiology, and critical care. The members of the UCLA Neurovascular team have worked cooperatively since 1986 with all of the management components available on-site at UCLA, allowing for efficient coordination of the various techniques.

Neurovascular Disorders Treated at UCLA:

**Intracranial Aneurysms**
Ruptured intracranial aneurysms may be treated either surgically or by endovascular technique. Postoperatively, transcranial Doppler and cerebral blood flow studies are available to assess for the development of vasospasm. Severe, medically refractory vasospasm is treated using balloon dilation angioplasty and/or pharmacologic intra-arterial infusion, performed by the interventional neuroradiology team. Giant and complex aneurysms often require combined treatment using endovascular techniques in conjunction with extracranial-intracranial arterial bypass, or surgery under hypothermic circulatory arrest.

**Arteriovenous Malformations (AVMs)**
The Neurovascular Program has extensive experience in the management of large and complex AVMS in children and adults which are generally treated with embolization followed by microneurosurgical resection. Functional brain mapping for surgical planning is a critical component of management of AVMS. Deep and critically located AVMS are treated with stereotactic radiosurgery which is combined with embolization in larger lesions. Dural arteriovenous malformations are usually treated definitively by embolization alone, but in some complex cases, surgery or combined techniques are necessary. Spinal AVMS are treated by microsurgical excision, endovascular therapy, or most commonly, a combination of the two techniques. UCLA is also a designated HHT (hereditary hemorrhagic telangiectasia) Center of Excellence, and provides treatment for the whole range of lesions, including brain AVMS, that are seen in families.

**Cavernous Angiomas of the Brain, Brain Stem and Spinal Cord**
Cavernous angiomas are generally treated by microsurgical excision when they have caused significant symptoms. Lesions of the brain stem and spinal cord can now be treated successfully using microneurosurgical techniques, usually in combination with intraoperative electrophysiologic monitoring.

**Vein of Galen Malformations**
Transarterial and transvenous endovascular approaches are employed to reduce flow through the fistula, combined in some cases with neurosurgical treatment.

**Intracranial Arterial Stenosis**
Stroke due to narrowing of the brain arteries carries one of the highest rates of recurrent stroke, as much as 25 percent. Treatment of narrowing of the intracranial arteries is performed by a multidisciplinary team of experts in both medical management and novel endovascular and surgical revascularization techniques, including angioplasty, stenting, bypass, and indirect revascularization surgeries.

UCLA Medical Center Facilities:

**Stroke Unit**
UCLA’s Acute Stroke Unit, one of the first in the nation, offers comprehensive, cutting edge acute inpatient care for patients suffering from cerebral infarction, hemorrhage or other cerebrovascular diseases.

**UCLA Neurocritical Care**
The UCLA Neurocritical Care program is an internationally acclaimed center of excellence in patient care, training, and research. The 24-bed Singleton Neuro-ICU features numerous state-of-the-art technologies including continuous EEG monitoring, cerebral microdialysis, brain oximetry, transcranial doppler, the world’s first ICU Robot (InTouch Health), and a comprehensive ICU Supercomputing System.

**California Rehabilitation Institute**
The California Rehabilitation Institute provides acute rehabilitation during the initial time of complex medical and neurological recovery post-stroke with the goal of reducing the impairments and disability associated with stroke and maximizing recovery.

**UCLA Clinical Image Processing Laboratory**
The laboratory is equipped with a full spectrum of 3D, image fusion, and post-processing software for cerebrovascular structural and perfusion study analysis.

**Neurosurgical Operating Rooms**
The neurosurgical operating rooms at UCLA, which accommodate more than 1,200 cases annually, include video systems for viewing microsurgical procedures, electrophysiologic equipment for brain monitoring, intraoperative angiography, and a frameless stereotactic imaging workstation (BrainLAB).

**UCLA Cerebral Blood Flow Laboratory (Clinical)**
This facility provides comprehensive transcranial Doppler evaluations and cerebral blood flow testing on inpatients and outpatients.

**Interventional Neuroradiology Suites**
The interventional angiography suites are equipped with the latest digital equipment, including 3-D rotational angiography designated for the performance of endovascular procedures. More than 400 such procedures are performed annually at UCLA.

**Stereotactic Radiosurgery**
The stereotactic radiosurgery section at UCLA utilizes state-of-the-art instrumentation for the treatment of vascular malformations of the brain. This multidisciplinary effort of neurosurgeons, physicists, radiologists, and radiation oncologists is planned on a three-dimensional and multiplanar computerized model using high resolution brain mapping imaging techniques.

UCLA Comprehensive Stroke Center website  http://www.stroke.ucla.edu
Vascular Neurosurgery  310-825-5111
Stroke Neurology  310-794-6379
Interventional Neuroradiology  310-267-8761
Neurocritical Care  310-267-9448
Emergency Neurology  310-794-0600
Selected Advances in Stroke Care and Research from the UCLA Comprehensive Stroke Center

- **First device therapy for acute ischemic stroke**
  - MERCI Retriever, Stent Retriever
  - Invented/Developed at UCLA

- **Leading device therapies for cerebral aneurysms**
  - Guglielmi detachable coil, Matrix coil
  - Invented at UCLA

- **Leading catheter therapy for intracranial arteriovenous malformations and fistulae**
  - Onyx as liquid embolic agent for intracranial arteriovenous malformations and fistulae
  - Developed at UCLA

- **First MRI demonstration of successful reversal of advanced stroke injury in humans**

- **First validated instrument for paramedic recognition of stroke**
  - Los Angeles Prehospital Stroke Screen (LAPSS)

- **First prehospital neuroprotective treatment of stroke trial**
  - Field Administration of Stroke Therapy - Magnesium (FAST-MAG)

- **First stroke device studied utilizing FDA approved exception from informed consent under emergency circumstances**

- **First multi-center trial of body weight-supported treadmill training and drug therapies for stroke**

- **First clinical cellphone PACS system for remote review of CT and MRI scans in acute stroke**
  - Developed at UCLA

- **First US multicenter trial of endoscopic treatment for acute intracerebral hemorrhage**

- **First trial of indirect revascularization for patients with intracranial atherosclerosis**

- **First routine use of intraoperative digital subtraction angiography for evaluation after surgical aneurysm and AVM treatment**

- **First Neuro ICU-adjacent comprehensive stroke imaging center with CT, PET, 3T MRI**

- **First ICU and ED robot for remote monitoring of stroke patients**

- **First cerebral blood flow laboratory to use bedside xenon CBF studies and TCD for stroke critical care and research**

- **First clinical information system with acute stroke management dashboard**

- **First to deploy write-once, write-everywhere stroke note for clinical documentation and automated quality and research database completion**

- **First systematic secondary prevention program for cerebral atherosclerosis**
  - Preventing Recurrence of Thrombo-embolic Events through Co-ordinated Treatment (Stroke PROTECT Program)

- **First accredited undergraduate program for Student Stroke Research**
  - UCLA Student Stroke Team

- **First accredited undergraduate program for Stroke Community Education and Research**
  - UCLA Stroke Force

- **First confirmation that stroke diagnosis in the field by paramedics and neurologists by cell phone is highly accurate**
  - Field Administration of Stroke Therapy - Magnesium (FAST-MAG)

- **First validation of wearable, remote wireless health monitoring for stroke**
  - Developed by UCLA Wireless Health Institute faculty and students
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By Phone: Call (310) 794-2620.

**ENROLLMENT FEES**

Includes course registration, syllabus, continental breakfast, break refreshments, and lunch.

$200 Early Enrollment

$225 (After April 15th)

$150 UC Faculty/Staff

**COMPLIMENTARY REGISTRATION FOR:**

Neurological Emergencies Treatment Trials (NETT) Investigators and Coordinators: 

Do not complete the online registration process.

Instead, visit the above website for special instructions.

Fax completed corresponding form to (310) 794-0599

**ACCRREDITATION**

The Office of Continuing Medical Education, David Geffen School of Medicine at UCLA is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

The Office of Continuing Medical Education, David Geffen School of Medicine at UCLA designates this live activity for a maximum of 7.25 AMA PRA Category 1 Credits™. Physicians should only claim credit commensurate with the extent of their participation in the activity.

**Disclosure**

The FDA has issued a concept paper which classifies commercial support of scientific and educational programs as promotional unless it can be affirmed that the program is “truly independent” and free of commercial influence. In addition to independence, the FDA requires that non-promotional, commercially supported education be objective, balanced, and scientifically rigorous. The policy further states that all potential conflicts of interest of the CME staff and faculty be fully disclosed to the program’s participants. In addition, Accreditation Council for Continuing Medical Education policy now mandates that the provider adequately manages all identified potential conflicts of interest prior to the program. We at UCLA fully endorse the letter and spirit of these concepts.

**Refunds**

Cancellations must be received in writing by April 15, 2016, and will be subject to a $50 processing fee. No refunds will be given after that date. If, for any reason, the course must be canceled, discontinued, or rescheduled by the Office of Continuing Medical Education, a full refund will be provided. You may fax your refund request to 310-794-2624.

**ACCOMMODATION SUGGESTIONS**

Although not specifically endorsed by this conference, a list of hotels conveniently located to UCLA is available here: http://www.uclahealth.org/Pages/patients/lodging.aspx

**LOCATION**

UCLA Carnesale Commons

251 Charles E. Young Drive, West

Los Angeles, CA 90095

(see next page for map and directions)

**PARKING**

Parking permits will be paid for by the course and provided to you directly at the Sunset Village parking structure*. Please follow the parking directions to the structure. Once you arrive, please inform the attendant that you are attending the UCLA Brain Attack! Symposium and they will issue you a permit to park. The parking attendants will be available from 7:00AM to 1:00PM. If you arrive outside this time frame, please go to the Westwood parking kiosk off Westwood Blvd. and purchase your parking permit at your own expense.

*If you have a UCLA staff/faculty parking permit already, please do not ask for a permit as you can cross park.
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Los Angeles, CA 90095

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From the 405 Freeway
Exit on Sunset Blvd. Proceed EAST on Sunset Blvd. and enter the campus by turning RIGHT onto Bellagio Drive. Proceed to the stop sign at the top of the hill. Turn LEFT at the stop sign onto De Neve Drive. Proceed 3/10 of a mile down the hill to the SV (Sunset Village) parking structure. The structure will be on your right. Turn RIGHT into the parking structure.

The Symposium organizing committee would like to thank Nathalie Kaldjian, graphic artist in UCLA Facilities Management Geographic Information Systems, for creating the map.